Application No. 09/917,698 Amendment dated January 30, 2006 Reply to Ex parte Quayle Action of November 29, 2005

Amendments to the Specification:

Please replace the paragraph of pages 3 (between lines 18-25) and 4 (between lines 1-3) with the following amended paragraph:

In accordance with one aspect, the present invention provides an apparatus for adaptively detecting received signals for power line communication, comprising: a main control unit (MCU) interface unit for adjusting a timing of data transmission; a register unit for storing control data, a threshold value, an offset value, and an error rate received from the MCU interface unit, and for outputting the stored data and values; a control logic unit for controlling a selection of [[a]] threshold value values, based on the control data stored in the register unit; a reference data selecting unit for selectively outputting, as the threshold values, the threshold value and offset value respectively stored in the register unit or an external threshold value and an external offset value, under control of the control logic unit; and a data processing unit for determining, based on the threshold values to be selectively outputted by the reference data selecting unit, whether or not the serial data received via a power line is valid data, and for outputting the received data.

Please replace the paragraph of page 4 (between lines 4-13) with the following amended paragraph:

The data processing unit may comprise: a data shift unit for shifting the serial data received via the power line, thereby outputting the data in parallel; a comparing unit for comparing the output signal from the data shift unit with the offset value when the reference data selecting unit selectively outputs, the threshold value and the offset value, as the threshold values selectively outputted from the reference data selecting unit; a first compressing unit for compressing an output signal from the comparing unit; a second compressing unit for re-compressing an output signal from the first compressing unit; a summing unit for summing output signals from the second compressing unit; and a determining unit for comparing an output signal value from the summing unit with the threshold value when the reference data selecting unit selectively outputs, the threshold value and the offset value, as the threshold values selectively outputted from the reference data selecting unit, thereby determining whether or not the output signal value from the summing unit is valid data, and for transmitting the determined value to the MCU.

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Please replace the paragraph of page 6 (between lines 6-11) with the following amended paragraph:

The reference numeral 14 denotes a control logic unit for controlling the selection of [[a]] threshold value values, based on the control data stored in the control register 121 of the register unit 12. The reference numeral 16 denotes a reference data selecting unit for selectively outputting, as the threshold values, the threshold value and offset value respectively stored in the threshold register 123 and offset register 125 of the register unit 12 or an external threshold value EXTTHRE and an external offset value EXTOFF, under control of the control logic unit.

Please replace the paragraph of page 6 (between lines 12-24) with the following amended paragraph:

The reference numeral 18 denotes a data processing unit for determining, based on the threshold values to be selectively outputted by the reference data selecting unit 16, whether or not the serial data received via the power line is valid data, and for outputting the received data. The data processing unit 18 includes a data shift unit 181 for shifting the serial data received via the power line, thereby outputting the data in parallel, a comparing unit 183 for comparing the output signal from the data shift unit 181 with the offset value when the reference data selecting unit 16 selectively outputs, the threshold value and the offset value, as said threshold values selectively outputted from the reference data selecting unit 16, a first compressing unit 185 for compressing an output signal from the comparing unit 183, a second compressing unit 187 for re-compressing an output signal from the first compressing unit 185, a summing unit 189 for summing output signals from the second compressing unit 185, and a determining unit 191 for comparing an output signal value from the summing unit 189 with the threshold value when the reference data selecting unit 16 selectively outputs, the threshold value and the offset value, as said threshold values selectively outputted from the reference data selecting unit 16, thereby determining whether or not the output signal value from the summing unit 189 is valid data.

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